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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,159	07/28/2003	Ta-Yung Yang	JCLA11440	5988
23900	7590	06/29/2005	EXAMINER	
J C PATENTS, INC.			HAN, YOUNGHUIE JESSICA	
4 VENTURE, SUITE 250			ART UNIT	
IRVINE, CA 92618			PAPER NUMBER	
			2838	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

JK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/629,159	YANG, TA-YUNG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Y. J. Han	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☒ Claim(s) 2,5 and 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art in view of Yamamoto et al (6,424,184) and Odell (6,738,277).

The acknowledged prior art discloses the invention substantially as claimed including a half bridge switching power supply having a transistor 30, a transistor 40, a power transistor 10, a power transistor 20, a diode 53, a start-up resistor 55, and a driver transformer 50. See figure 1. The acknowledged prior art, however, does not disclose a switch connected in series with a start-up resistor and a balance-apparatus, connected in parallel with a high-side capacitor and a low-side capacitor, wherein said balance-apparatus will sink a current from either said high-side capacitor or said low-side capacitor to balance a differential voltage between said high-side capacitor and said low-side capacitor, wherein a negative terminal of said high-side capacitor is connected with a positive terminal of said low-side capacitor. Yamamoto et al teaches that the use of such switch connected in series with a start-up resistor is well known in the art. As shown in figure 10C, a switch 332-2 is connected between one end of the resistor 332 and the power supply voltage  $V_c$ , so that the switch 332-2 is turned off during the sleep mode to block the current flowing through the resistor 332. Further, Odell clearly teaches the claimed balance-apparatus. See Figure 2. Odell discloses a balance-apparatus (200), connected in parallel with a

Art Unit: 2838

high-side capacitor (207) and a low-side capacitor (209), wherein said balance-apparatus will sink a current from either said high-side capacitor or said low-side capacitor to balance a differential voltage between said high-side capacitor and said low-side capacitor, wherein a negative terminal of said high-side capacitor is connected with a positive terminal of said low-side capacitor; wherein said balance-apparatus comprises: a resistor network (R3, R4, R5) connected in between a positive terminal of said high-side capacitor and a negative terminal of said low-side capacitor; an N-current-sink (R1, Q1) connected in parallel with said high-side capacitor; and a P-current-sink (R2, Q2) connected in parallel with said low-side capacitor; wherein said resistor network comprises: a high-side resistor (R3) ; a threshold resistor (R5); and a low-side resistor (R4) connected in series with said high-side resistor via said threshold resistor, wherein the resistance of said high-side resistor is equal to the resistance of said low-side resistor. Thus, it would have been obvious to one having ordinary skill in the art to employ a switch connected in series with the start-up resistor to control power supply to the start-up resistor in standby mode as taught by Yamamoto et al, and the balance apparatus as taught by Odell in the acknowledged prior art to obtain the claimed invention, in order to reduce power consumption in the bleeding resistors.

***Allowable Subject Matter***

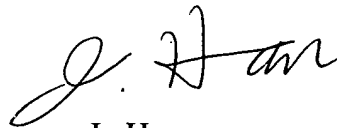
3. Claims 2, 5, and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2838

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. J. Han whose telephone number is 571-272-2078. The examiner can normally be reached on Mon-Fri 5:30am-2:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'J. Han', is positioned above the printed name and title.

J. Han  
Primary Examiner  
Art Unit 2838